

**STATE FOREST LAND
ENVIRONMENTAL CHECKLIST**

Purpose of Checklist:

The State Environmental Policy Act (SEPA), chapter 43.21C RCW, requires all governmental agencies to consider the environmental impacts of a proposal before making decisions. An environmental impact statement (EIS) must be prepared for all proposals with probable significant adverse impacts on the quality of the environment. The purpose of this checklist is to provide information to help you and the agency identify impacts from your proposal (and to reduce or avoid impacts from the proposal, if it can be done) and to help the agency decide whether an EIS is required.

Instructions for Applicants:

This environmental checklist asks you to describe some basic information about your proposal. Governmental agencies use this checklist to determine whether the environmental impacts of your proposal are significant, requiring preparation of an EIS. Answer the questions briefly, with the most precise information known, or give the best description you can. *Questions in italics are supplemental to Ecology's standard environmental checklist. They have been added by the DNR to assist in the review of state forestland proposals. Adjacency and landscape/watershed-administrative-unit (WAU) maps for this proposal are available on the DNR internet website at <http://www.dnr.wa.gov> under "SEPA Center." These maps may also be reviewed at the DNR regional office responsible for the proposal. This checklist is to be used for SEPA evaluation of state forest land activities.*

You must answer each question accurately and carefully, to the best of your knowledge. In most cases, you should be able to answer the questions from your own observations or project plans without the need to hire experts. If you really do not know the answer, or if a question does not apply to your proposal, write "do not know" or "does not apply." Complete answers to the questions now may avoid unnecessary delays later. *All of the questions are intended to address the complete proposal as described by your response to question A-11. The proposal acres in question A-11 may cover a larger area than the forest practice application acres, or the actual timber sale acres.*

Some questions ask about governmental regulations, such as zoning, shoreline, and landmark designations. Answer these questions if you can. If you have problems, the governmental agencies can assist you.

The checklist questions apply to all parts of your proposal, even if you plan to do them over a period of time or on different parcels of land. Attach any additional information that will help describe your proposal or its environmental effects. The agency to which you submit this checklist may ask you to explain your answers or provide additional information reasonably related to determining if there may be significant adverse impact.

Use of checklist for nonproject proposals:

Complete this checklist for nonproject proposals, even though questions may be answered "does not apply." IN ADDITION, complete the SUPPLEMENTAL SHEET FOR NON PROJECT ACTIONS (part D).

For nonproject actions, the references in the checklist to the words "project," "applicant," and "property or site" should be read as "proposal," "proposer" and "affected geographic area," respectively.

A. BACKGROUND

1. Name of proposed project, if applicable:

Timber Sale Name: **Caveman** *Agreement #:* **30-076316**

2. Name of applicant: **Department of Natural Resources**

3. Address and phone number of applicant and contact person:

**Pacific Cascade Region
601 Bond Road
PO Box 280
Castle Rock, Washington 98611-0280
Phone: (306) 274-2035
Contact Person: Eric Wisch**

4. Date checklist prepared: **April 21, 2004**

5. Agency requesting checklist: **Department of Natural Resources**

6. Proposed timing or schedule (including phasing, if applicable):

- a. *Auction Date:* **FY-2005**
b. *Planned contract end date (but may be extended)* **FY-2007**
c. *Phasing:*

7. Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain.

Yes

Timber Sale

- a. *Site preparation:*

Some mechanical site preparation will be done concurrently with harvest activities. Aerial chemical spraying may be done after harvest is complete.

- b. *Regeneration Method:*

Upon completion of harvest activities and any necessary site preparation treatments, the harvest area will be hand planted with Douglas-fir and noble fir seedlings at a rate that meets or exceeds Forest Practices standards.

c. *Vegetation Management:*

Competing vegetation will be monitored periodically. If competing vegetation has adverse affects on tree survival and growth, a manual or chemical release may be prescribed.

d. *Thinning:*

A survey at approximately 12 to 15 years of age will determine if pre-commercial thinning is needed. The stands will be evaluated at approximately 25 to 40 years of age to determine if commercial thinning will be done.

Roads:

See question A.11.c below.

Rock Pits and/or Sale:

The primary rock source for this sale will be the L-1100C Rock Pit located in section 2 of township 3 north, range 4 east, W.M. A secondary rock source will be the L-1180A Rock Pit located in section 1 of township 3 north, range 4 east, W. M. Both pits will be maintained in a safe and drained condition, and may be used for other current or future road projects in the vicinity.

Other:

It is possible that a direct sale of firewood from the sale area may occur following harvest completion. If not, then firewood salvage of logging residue by individuals may occur up to one year following harvest.

8. List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal.

☐ 303 (d) – listed water body in WAU: ☐ temp. ☐ sediment ☐ completed TMDL (total maximum daily load):

☐ Landscape plan:

☐ Watershed analysis:

☐ Interdisciplinary team (ID Team) report:

☒ Road design plan: **Road Plan available at the region office.**

☐ Wildlife report:

☐ Geotechnical report:

☐ Other specialist report(s):

☐ Memorandum of understanding (sportsmen's groups, neighborhood associations, tribes, etc.):

☒ Rock pit plan: **Pit Plan available at the region office.**

☒ Other: **Spotted owl habitat mapping, Forest Practices Activity Maps, WAU map for rain-on-snow areas, Forest Resource Plan (DNR, July 1992), State Soil Survey, DNR GIS databases, Habitat Conservation Plan (January, 1997), HCP Checklist (attached), Planning and Tracking Special Concerns Report and associated maps, Larch Landscape Road Maintenance and Abandonment Plan # R2900196.**

9. Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain.

None known.

10. List any government approvals or permits that will be needed for your proposal, if known.

☒ HPA: **Blanket HPA for type 4 and 5 waters.** ☐ Burning permit

☐ Shoreline permit

☒ Incidental take permit **ITP 1168 and PRT-812521** ☒ FPA. **2910533** ☐ Other:

11. Give brief, complete description of our proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist that ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page. (Lead agencies may modify this form to include specific information on project description.)

a. *Complete proposal description:*

This proposed timber sale takes place in the Larch Landscape and is located approximately 21 miles east of Battle Ground, Washington, in Sections 34, 35, and 36 of Township 4 North, Range 4 East, W.M. It involves the regeneration harvest of primarily Douglas fir averaging 55 to 90 years of age. The gross area of this 5-unit sale is approximately 344 gross acres. There will be approximately 56 acres left unharvested in riparian management zones (stream buffers), and approximately 26 acres left unharvested in leave tree clumps and 110 individual marked leave trees. A minimum of 2,374 trees will be left for green tree and snag retention. There will be a net harvest acreage of 262 acres.

Sale of Timber

Estimated Total Volume: 6,480 MBF

Unit 1: 2,600 MBF

Unit 2: 180 MBF

Unit 3: 2000 MBF

Unit 4: 1000 MBF

Unit 5: 700 MBF

Unit area (acres):

Unit 1: Gross Proposal Acres: 97

Leave Tree Acres: 9

RMZ Acres: 0

Net Harvest Acres: 88

Leave trees scattered and clumped: 819

Unit 2: Gross Proposal Acres: 14
 Leave Tree Acres: <1
 RMZ Acres: 8
 Net Harvest Acres: 6
 Leave trees scattered and clumped: 58

Unit 3: Gross Proposal Acres: 116
 Leave Tree Acres: 7
 RMZ Acres: 28
 Net Harvest Acres: 81
 Leave trees scattered and clumped: 719

Unit 4: Gross Proposal Acres: 63
 Leave Tree Acres: 7
 RMZ Acres: 5
 Net Harvest Acres: 51
 Leave trees scattered and clumped: 465

Unit 5: Gross Proposal Acres: 54
 Leave Tree Acres: 3
 RMZ Acres: 15
 Net Harvest Acres: 36
 Leave trees scattered and clumped: 313

Total Proposal Area Acres (Gross): 344
 Total Leave Tree Acres: 26
 Total RMZ Acres: 56
 Total Net Harvest Acres: 262
 Total leave trees scattered and clumped: 2,374

b. *Timber stand description pre-harvest (include major timber species and origin date), type of harvest, overall unit objectives.*

Type of harvest:
 Regeneration Harvest, with Mobile - Shovel and Tracked Skidder Logging systems

Overall Unit Objective:
 The objective of this activity is to produce revenue for the trust beneficiaries while minimizing the ecological impact to the local ecosystem. This objective will be achieved by following the guidelines set forth in: the DNR Forest Resource Plan, the DNR Habitat Conservation Plan, the DNR Forestry Handbook, and the Washington State Forest Practice Rules. There are 88 acres on Forest Board Transfer trust lands (01) and 174 acres on Common School trust lands (03).

Pre-harvest Stand Description:
 The proposed activity will take place in a stand of predominantly Douglas-fir, with a small component of red alder and big leaf maple in natural openings and near riparian areas. The average age of the conifer is approximately 55 to 90 years of age. There are a few small openings, from 0.1 to 1 acre in size, scattered throughout the proposed areas that contain a mixed species of hardwoods (bitter cherry, red alder, and big leaf maple), with an understory component of salal, salmonberry, sword fern, huckleberry, and vine maple.

Wildlife Objectives:
 The general wildlife objective is to minimize the immediate impact to the current wildlife populations, while enhancing the habitat for future populations. A total of 36 legacy tree clumps have been left within the sale area along with a total of 56 RMZ acres. Most of these leave tree areas were designed to contain trees that will be resistant to wind-throw, while protecting relatively unique features such as snags, large down woody debris, and wet areas.

Approximately 110 individually marked legacy leave trees were left throughout the unit boundaries to even out the distribution for wildlife concerns. Many of the individually marked trees are large structurally unique trees, which have the characteristics desired for future snag retention. These marked leave trees and leave tree clumps will expedite the development of a more diverse, multi-storied canopy layer in the future stand. Snags were protected where possible, and those snags within the harvest area will only be retained if they meet the Washington State Department of Labor and Industry Safety Guidelines. All snags to be felled for safety reasons shall remain in the area where they fall. Existing down woody debris 36 inches in diameter and greater shall remain on site.

Silvicultural Objectives:
 The primary silvicultural objective for this harvest area is to grow a healthy and species diverse forest stand as rapidly as possible while maintaining or improving the ecological integrity of the area. This sale will have residual scattered leave tree clumps and individually marked leave trees left throughout the unit. No western red cedar will be harvested in an effort to help establish natural regeneration of this species. Some mechanical site preparation will be needed on portions of the harvest area to establish a viable future plantation. It is probable that chemical site prep will also be needed, as there is heavy brush competition on parts of the sale area. The area will be planted with Douglas-fir and noble fir seedlings at a rate that meets or exceeds Forest Practices standards. Some natural regeneration is expected from seeds scattered by the leave trees. This natural regeneration should offset some of the expected seedling mortality attributed to browsing deer, rodent damage, and competing vegetation. A one-year and three-year regeneration survey will be conducted to monitor the progress of the new plantation.

Harvest Systems:
 This proposed activity is a regeneration harvest with clumped and scattered leave trees. Most of the ground contained within this sale is less than 35% slope. Mobile yarding will be permitted during dry soil conditions on all parts of the harvest area. The purchaser will have the option to log the entire harvest area with cable systems, provided lead-end suspension is maintained.

c. Road activity summary. See also forest practice application (FPA) for maps and more details.

Roadwork is outlined below, with site-specific details in the timber sale road plan available at the Pacific Cascade Region office.

Road Narrative:
There will be approximately 8,800 feet of optional temporary road construction and approximately 1,100 feet of optional road maintenance associated with this proposal. All optional road construction, if built, will be abandoned upon the completion of sale activities. Abandonment will consist of pulling drainage structures, constructing water bars, and blocking access.

Access to the proposed sale area will be from the existing L-1100, L-1100C, L-1180, L-1210, L-1120 roads, as well as the optional spurs A1, A2, A3, B, B1, C, and D.

Rock Pits:

The rock source for this proposal will come from either the L-1100C Pit located in the NW ¼ of section 2, township 3 north, range 4 east; or the L-1180A pit located in the NW ¼ of section 1, township 3 north, range 4 east, W.M.

Type of Activity	How Many	Length (feet) (Estimated)	Acres (Estimated)	Fish Barrier Removals (#)
Construction		8,800	4	0
Reconstruction		0		0
Abandonment		8,800	0	0
Bridge Install/Replace	1			0
Culvert Install/Replace (fish)	0			0
Culvert Install/Replace (no fish)	12			

There will be up 1100 feet of optional road maintenance associated with this activity.

Temporary roads: A temporary road is defined in Forest Practice rules as a forest road that is constructed and intended for use during the life of the approved forest practices application. All temporary roads must be abandoned in accordance with WAC 222-24-052(3). The length listed above is also included in the “Construction” and “Abandonment” sections of the chart above.

12. Location of proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township, and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist. (See timber sale map. See also color landscape/WAU map on the DNR website <http://www.dnr.wa.gov> under “SEPA Center.”)

- a. Legal description: This sale is located in Sections 34, 35, and 36 of Township 4 North, Range 4 East, W.M..
- b. Distance and direction from nearest town (include road names):

This proposal is located approximately 21 miles east of Battle Ground, WA. The primary access will be from I-205 exit 30 to SR 503 to SR 500 to Rock Creek Rd. to NE 152nd Ave. to NE Lucia Falls Rd. to Sunset Falls Rd. to Dole Valley Road to the L-1100 Forest Rd.

c. Identify the watershed administrative unit (WAU), the WAU Sub-basin(s), and acres. (See also landscape/WAU map on DNR website <http://www.dnr.wa.gov> under “ SEPA Center.”)

WAU Name	WAU Acres	DNR WAU Acres	Sub-Basin Number	Sub-Basin Acres	DNR Sub-Basin Acres	Proposal Acres in Sub-Basin (estimated)
Cold Creek	21,282	16,216	5	2,895	1,739	22
Rock Creek Clark	35,440	5,675	18	2,480	1,677	61
Rock Creek Clark	35,440	5,675	19	1,310	1,136	114
Rock Creek Clark	35,440	5,675	20	1,985	575	65

The acreages listed above are from DNR HCP WAU data layers. In some cases, these numbers do not match the acres on the above referenced WAU maps. On the WAU map, the Cold Creek is listed as the Rock Creek WAU and the Rock Creek Clark WAU is listed as the Horseshoe Falls WAU.

13. Discuss any known future activities not associated with this proposal that may result in a cumulative change in the environment when combined with the past and current proposal(s). (See digital ortho-photos for WAU and adjacency maps on DNR website <http://www.dnr.wa.gov> under “SEPA Center” for a broader landscape perspective.)

Caveman is a regeneration harvest located in sub-basin 5 of the Cold Creek WAU, and sub-basins 18, 19, and 20 of the Rock Creek Clark WAU.

Cold Creek WAU:
Approximately 76% of the land within the WAU is managed by the DNR. In sub-basin 5, approximately 60% of the land is under DNR management. There has been periodic regeneration timber harvesting throughout the WAU. Within the Cold Creek WAU, parts of seven regeneration harvests (Ginger, Mixed Berry, Dole, Calico, T-Bone, Mocha, and Linnaeus) and one pole sale (Pole About) have been completed in the last 4 years. In addition, one pole sale (Turnaround Pole) and three regeneration sales are under contract and active in the WAU (Gadwall, Salsa, and Hoosier). One sale in the WAU was sold in December, 2003 (Legacy) and another sale was sold in May, 2004 (Camp Robber). Of the 16,216 acres managed by DNR in the WAU, approximately 2208 acres will have been harvested or sold within the past seven years or are to be sold within the next two years. The plans of the adjacent landowners in the WAU are unknown. Approximately 78 percent of the WAU managed by the DNR will be greater than 25 years old after harvesting all the present planned sales

Rock Creek Clark WAU:
Approximately 16% of the land within the WAU is managed by the DNR. Approximately 68% of the land in sub-basin 18, approximately 88% of the land in sub-basin 19, and approximately 29% of the land sub-basin 20 are under DNR management. The Rock Creek Clark WAU has had one pole sale within the last seven years (Pole About) and currently has one regeneration harvest sale under contract and active (Espresso). Of the 5,575 acres managed by DNR in the WAU, approximately 1260 acres will have been harvested or sold within the past seven years or are to be sold within the next two years. The plans of the adjacent landowners in the WAU are unknown. Approximately 57 percent of the WAU managed by the DNR will be greater than 25 years old after harvesting all the present planned sales

This proposal follows the guidelines in the DNR’s Habitat Conservation Plan, as well as the DNR’s Forest Resource Plan and Washington State Forest Practices regulations. Several measures have been taken to prevent negative environmental impacts.

- There are approximately 56 acres of Riparian Management Zones, which will minimize sediment introduction into streams and maintain riparian structure.
- No activity will occur within 167 feet of seven type-3 streams and one type A wetlands, or within 100 feet of one type 4 stream.
- All new road construction associated with this sale will be optional. Up to 8,800 feet of road, if built, will be temporary and will be abandoned upon completion of their use.

B. ENVIRONMENTAL ELEMENTS

1. Earth

a. General description of the site (check one):

☐ Flat, ☒ Rolling, ☐ Hilly, ☐ Steep Slopes, ☐ Mountainous, ☐ Other:

1) General description of the WAU or sub-basin(s) (landforms, climate, elevations, and forest vegetation zone).

The Cold Creek WAU is situated in the western foothills of the Cascade Mountain Range and contains a variety of landforms, ranging from approximately 700 feet in elevation in the north end of the WAU to approximately 4000 feet in the east part of the WAU. Slopes vary from 0% to over 100%. The climate is moderate with an average of 50 to 90 inches of precipitation annually. Approximately 32% of the WAU, or 6,748 acres, is within the rain-on-snow zone. Timber types include Douglas-fir, western hemlock, noble and silver fir, and red alder. The major drainage for Cold Creek WAU is Rock Creek.

The Rock Creek Clark WAU is situated on the west side of the Cascade Mountain Range and contains a variety of land forms, ranging from near sea level at the East Fork Lewis River in the west end of the WAU to feeder streams located at about 4000 feet elevation in the southeast portion of the WAU. Slopes vary from 0 to over 100%. Precipitation averages from over 90 inches at the higher elevations to around 50 inches in the lower elevations. Approximately 31% of the WAU, or 12,368 acres, is within the rain-on-snow zone. Timber types include Douglas-fir, western hemlock, noble and silver fir, and red alder. The major drainage for Rock Creek Clark WAU is the East Fork Lewis River.

2) Identify any difference between the proposal location and the general description of the WAU or sub-basin(s).

This proposal is located at approximately 1300 to 2100 feet in elevation. The timber type is primarily Douglas-fir, with small components of western hemlock, noble fir, and red alder. The Douglas-fir ranges in age from approximately 55 to 90 years old. A majority of the slopes within the sale are less than 35%, with some isolated areas less than 100 feet in distance up to 50% slope. This sale area is very similar to other areas in the WAU.

b. What is the steepest slope on the site (approximate percent slope)?

The steepest slope on the site is up to 50% for short distances in localized areas.

c. What general types of soils are found on the site (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any prime farmland. *Note: The following table is created from state soil survey data. It is a roll-up of general soils information for the soils found in the entire sale area. It is only one of several site assessment tools used in conjunction with actual site inspections for slope stability concerns or erosion potential. It can help indicate potential for shallow, rapid soil movement, but often does not represent deeper soil sub-strata. The actual soils conditions in the sale area may vary considerably based on land-form shapes, presence of erosive situations, and other factors. The state soil survey is a compilation of various surveys with different standards.*

The acres listed in the soils table below are for those areas where timber harvest takes place.

State Soil Survey #	Soil Texture	% Slope	Acres	Mass Wasting Potential	Erosion Potential
3908	COBBLY SILT LOAM	5-30	172	INSIGNIFICANT	MEDIUM
3917	KINNEY-SKOLY-COMPLEX	50-30	51	No Data	No Data
3918	KINNEY-SKOLY-COMPLEX	30-65	20	No Data	No Data
3607	GRAVELLY SILT LOAM	5-30	10	INSIGNIFICANT	MEDIUM
4221	V.COBBLY SILT LOAM	5-30	6	INSIGNIFICANT	MEDIUM
7403	COBBLY LOAM	30-65	3	LOW	MEDIUM

d. Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe.

1) *Surface indications:*

There were no observed surface indications or any known history of unstable slopes discovered within the vicinity of the proposed harvest area.

2) *Is there evidence of natural slope failures in the sub-basin(s)?*

☒No ☐Yes, type of failures (shallow vs. deep-seated) and failure site characteristics:

There is no known evidence of natural slope failures in the sub-basins. However, it is likely there are some small, localized areas of slope failures along larger streams in the sub-basins. There are no signs of recent large landslides or mass wasting. Areas where two or more streams come together on slopes greater than 30% typically demonstrate minor erosive actions, which can destabilize the stream banks.

3) *Are there slope failures in the sub-basin(s) associated with timber harvest activities or roads?*

☒No ☐Yes, type of failures (shallow vs. deep-seated) and failure site characteristics:

Associated management activity:

No slope failures associated with timber harvest activities or roads have been observed in these sub-basins.

4) *Is the proposed site similar to sites where slope failures have occurred previously in the sub-basin(s)?*

☒No ☐Yes, describe similarities between the conditions and activities on these sites:

5) *Describe any slope stability protection measures (including sale boundary location, road, and harvest system decisions) incorporated into this proposal.*

See question B.1.h. below for protection measures that will be implemented with this proposal.

e. Describe the purpose, type, and approximate quantities of any filling or grading proposed. Indicate source of fill.

Approx. acreage new roads: 4 Approx. acreage new landings: <1 acre Fill source: common earth

See question A.11.c. above for road details.

f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe.

A small amount of incidental erosion could occur during the course of road building, rock pit development activities, and yarding. However, prudent road location, appropriate construction techniques, and maintenance, as well as the mitigating measures outlined in question B.1.h. below will minimize and control any possible erosion.

g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)? *Approximate percent of proposal in permanent road running surface (includes gravel roads):*

Approximately 1.5% of the proposal will be in rocked road surface.

h. Propose measures to reduce or control erosion, or other impacts to the earth, if any:

(Include protection measures for minimizing compaction or rutting.)

Measures to reduce erosion on roads or during active road construction:

- Roads will either be crowned, ditched, and cross-drained; or outsloped.
- Soils exposed during road construction will be grass seeded and fertilized.
- Seasonal timing restrictions will prohibit road construction from November 1 to April 30 to reduce activities during wet weather conditions.
- Cross drains will be installed properly and maintained.
- Sediment delivery will be addressed as needed during operations and may include the use of water bars or silt traps.
- There will be periodic maintenance and inspection of the road system to insure proper drainage.

Measures to reduce erosion during active logging operation:

- Timber shall be felled and yarded away from all streams.
- Tracked skidders will be allowed on all units during the months of June to October when dry soil conditions permit.
- Ground based yarding will be restricted to slopes less than 35% and during dry soil conditions only.
- The lead-end of logs will be suspended during all yarding operations.
- The potential for sediment delivery will be addressed as needed during operations and may include the use of water bars or silt traps.
- Sale boundaries have been placed an average of approximately 167 feet away from seven type 3 streams one type A wetland (greater than one acre in size), and at least 100 feet away from one type 4 stream.

2. **Air**

a. What types of emissions to the air would result from the proposal (i.e., dust from truck traffic, rock mining, crushing or hauling, automobile, odors, industrial wood smoke) during construction and when the project is completed? If any, generally describe and give approximate quantities if known.

Minor amounts of engine exhaust from logging equipment and dust from vehicle traffic and logging equipment are expected while the project is active.

b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe.

No

c. Proposed measures to reduce or control emissions or other impacts to air, if any:

None

3. Water

a. Surface:

- 1) Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into. *(See timber sale map and forest practice base maps.)*

There are seven type 3 streams, one type 4 stream, 16 type 5 streams, one type A wetland, and four forested wetlands less than .25 acre within or adjacent to parts of this proposal. See questions B.3.a.1)a), b), and c) below.

a) Downstream water bodies:

All streams associated with this project are tributary to King Creek, which flows into the East Fork Lewis River 2.5 miles to the north the sale area. The East Fork Lewis River drains into the Lewis River approximately 20 miles west of the sale area, and the Lewis River drains into the Columbia River about 5 miles west of there.

b) Complete the following riparian & wetland management zone table:

Wetland, Stream, Lake, Pond, or Saltwater Name (if any)	Water Type	Number (how many?)	Avg RMZ/WMZ Width in Feet (per side for streams)
King Creek	3	1	167
Unnamed	3	6	167
Unnamed	4	1	100
Unnamed	5	16	0
Unnamed Wetland	A	1	167
Unnamed Wetland	Forested	4	0

c) List RMZ/WMZ protection measures including silvicultural prescriptions, road-related RMZ/WMZ protection measures, and wind buffers.

There are seven type 3's, one type 4, and sixteen type 5 streams within or adjacent to the proposed unit boundaries. The type 3 streams have been buffered by an average of approximately 167 feet on each side, and the type 4 stream was buffered by a minimum of 100 feet on each side. In addition, there is one type A wetland and four forested wetlands within or adjacent to Units 1, 3 and 5. The type A wetland is adjacent to Unit 5 and has been buffered by an average of approximately 167 feet. All the type 5 streams and the forested wetlands, which are less than .25 acre in size, have been bounded out of the proposed harvest areas with leave tree clumps. All streams and wetlands have been evaluated per the Washington State Forest Practices Interim Water Type Rules and protected per current HCP guidelines and procedures.

- 2) Will the project require any work over, in, or adjacent to (within 200 feet) to the described waters? If yes, please describe and attach available plans.

☐No ☒Yes *(See RMZ/WMZ table above and timber sale map.)*

Description (include culverts):

Timber felling, bucking, cable yarding, tracked mobile yarding, and/or road building will take place within 200 feet of all the described waters/wetlands. However, the buffers describe in question c) above will prohibit harvest activities within approximately 167 feet of seven type 3 streams or the type A wetland and within 100 feet of one type 4 stream. Timber will be felled away from all streams including the type 5 streams Any slash that may enter a stream would be cleaned out per contract requirements.

- 3) Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material.

None

- 4) Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known. *(Include diversions for fish-passage culvert installation.)*

☒No ☐Yes, description:

- 5) Does the proposal lie within a 100-year floodplain? If so, note location on the site plan.

☒No ☐Yes, describe location:

- 6) Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge.

☒No ☐Yes, type and volume:

- 7) Does the sub-basin contain soils or terrain susceptible to surface erosion and/or mass wasting? What is the potential for eroded material to enter surface water?

Generally, the high potential areas associated erosion or mast wasting are located on slopes of 65% or greater, and often involve unstable soils and/or steep head walls. Some past failures have entered streams in small amounts within the WAU. However, no slope failures or steep

slopes have been identified within the sub-basins associated with this timber harvest activity and none have been observed along the proposed roads in these sub-basins. With the mitigating measures to be implemented, this proposal is not expected to contribute a high proportion of material to surface waters. See questions B.1.c, B.1.d, B.1.f, B.1.h, and B.3.9).

- 8) *Is there evidence of changes to the channels in the WAU and sub-basin(s) due to surface erosion or mass wasting (accelerated aggradations, erosion, decrease in large organic debris (LOD), change in channel dimensions)?*
☐No ☒Yes, describe changes and possible causes:

See question B.3.a.13 below.

- 9) *Could this proposal affect water quality based on the answers to the questions 1-8 above?*
☐No ☒Yes, explain:

This proposal could possibly introduce minor amounts of sediment into the streams adjacent to the proposal area as a result of road building and logging operations during early stages of activity. The erosion control measures and operation procedures outlined in B.1.f and B.1.h. are expected to minimize the chances of any sediment delivery.

- 10) *What are the approximate road miles per square mile in the WAU and sub-basin(s)?*

The Cold Creek WAU averages 3.6 miles of road per square mile across all ownerships. It is estimated that sub-basin 5 averages approximately 4.4 miles of road per square mile

The Rock Creek Clark WAU averages approximately 3.9 miles of road per square mile across all ownerships. It is estimated that sub-basin 18 averages approximately 2.8 miles, sub-basin 19 averages approximately 4.9 miles, and sub-basin 20 averages approximately 5.8 miles of roads per square mile.

Are you aware of areas where forest roads or road ditches intercept sub-surface flow and deliver surface water to streams, rather than back to the forest floor?

☒No ☐Yes, describe:

There are no known areas associated with this proposal where forest roads or road ditches deliver surface water to streams.

- 11) *Is the proposal within a significant rain-on-snow (ROS) zone? If not, **STOP HERE** and go to question B-3-a-13 below. Use the WAU or sub-basin(s) for the ROS percentage questions below.*
☐No ☒Yes, approximate percent of WAU in significant ROS zone.

Cold Creek WAU: 32%
Sub-basin 5: 14%

Rock Creek Clark WAU: 27%
Sub-basin 18: 38%
Sub-basin 19: 45%
Sub-basin 20: 6%

- 12) *If the proposal is within the significant ROS zone, what is the approximate percentage of the WAU or sub-basin(s) within the significant ROS zone (all ownerships) that is (are) rated as hydrologically mature?*

Cold Creek WAU: 78%
Rock Creek Clark WAU: 57%
These percentages are including sales that have been harvested or sold within the past seven years or are to be sold within the next two years.

- 13) *Is there evidence of changes to channels associated with peak flows in the WAU or sub-basin(s)?*
☐No ☒Yes, describe observations:

Normally, there are few significant changes associated with peak flows in the WAU or sub-basins. However, in the winter of 1996, a 100-year event occurred. The rainstorm set rainfall and flood level records in Southwest Washington and Northwest Oregon. The event caused many shallow mass-wasting events. Many stream channels were altered in this event due to extremely high stream flows with accompanying sediment loads and possibly large woody debris delivery. The full extent of this is not known.

- 14) *Based on your answers to questions B-3-a-10 through B-3-a-13 above, describe whether and how this proposal, in combination with other past, current, or reasonably foreseeable proposals in the WAU and sub-basin(s), may contribute to a peak flow impact.*

This proposal may slightly change the timing/duration/amount of peak flow, and flow rates may increase slightly during low flow periods due to decreased transpiration and interception during the first decade of new forest growth. However, no cumulative impacts are expected since similar projects in the WAU have resulted in no noticeable increase in peak flows. See question B.3.a.16 below.

- 15) *Is there water resource (public, domestic, agricultural, hatchery, etc.), or area of slope instability, downstream or downslope of the proposed activity that could be affected by changes in surface water amounts, quality, or movements as a result of this proposal?*
☒No ☐Yes, possible impacts:

- 16) *Based on your answers to questions B-3-a-10 through B-3-a-15 above, note any protection measures addressing possible peak flow/flooding impacts.*

See question B.1.h for site-specific protection measures to help control erosion and protect water quality.

b. Ground Water:

- 1) Will ground water be withdrawn, or will water be discharged to ground water? Give general description, purpose, and approximate quantities if known.

Relief culvert drainage may increase ground water recharge directly below culvert outlets.

- 2) Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: Domestic sewage; industrial, containing the following chemicals; agricultural; etc.). Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve.

Minor amounts of oil, fuel, and other lubricants may inadvertently be discharged to the ground as a result of heavy equipment use or mechanical failure. No lubricants will be disposed of on-site. This proposed activity is expected to have no impact on ground water.

- 3) *Is there a water resource use (public, domestic, agricultural, hatchery, etc.), or area of slope instability, downstream or down slope of the proposed activity that could be affected by changes in groundwater amounts, timing, or movements as a result this proposal?*

☒No ☐Yes, describe:

a) *Note protection measures, if any.*

See question B.1.h for site-specific protection measures to help control erosion and protect water quality.

c. Water Runoff (including storm water):

- 1) Describe the source of runoff (including storm water) and method of collection and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe.

Storm water will be the only runoff associated with this proposal. On roads, storm runoff will be collected by road ditches and diverted through cross-drains over energy dissipaters and onto the forest floor. Out-sloped roads with drivable water dips will maintain adequate drainage. Within the harvest unit, runoff will follow natural topography and be largely absorbed into the ground, with the excess entering streams.

- 2) Could waste materials enter ground or surface waters? If so, generally describe.

Due to the wide buffers on the streams associated with this proposal, no logging slash from harvest activities will enter perennial waters.

a) *Note protection measures, if any.*

Any logging slash that inadvertently enters streams during the process of road construction or maintenance will be removed immediately.

d. Proposed measures to reduce or control surface, ground, and runoff water impacts, if any:
(See surface water, ground water, and water runoff sections above, questions B-3-a-1-c, B-3-a-16, B-3-b-3-a, and B-3-c-2-a.)

See question B.1.h. above.

4. Plants

a. Check or circle types of vegetation found on the site:

☒deciduous tree: ☒alder, ☒maple, ☐aspen, ☐cottonwood, ☐western larch, ☐birch, ☒other: **bitter cherry**
☒evergreen tree: ☒Douglas fir, ☐grand fir, ☐Pacific silver fir, ☐ponderosa pine, ☐lodgepole pine,
☐western hemlock, ☐mountain hemlock, ☐Englemann spruce, ☐Sitka spruce,
☒red cedar, ☐yellow cedar, ☒other: **noble fir**

☒shrubs: ☒huckleberry, ☒salmonberry, ☒salal, ☒other: **vine maple, Oregon grape, elderberry, baldhip rose, thimbleberry, snowberry, California hazel**

☒grass

☐pasture

☐crop or grain

☒wet soil plants: ☐cattail, ☐buttercup, ☐bullrush, ☒skunk cabbage, ☒devil's club, ☒other: Sedges

☐water plants: ☐water lily, ☐eelgrass, ☐milfoil, ☐other:

☒other types of vegetation: **bracken fern, sword fern, blackberry, vanilla leaf, maidenhair fern, deer fern, bleeding heart, false lily of the valley, Oregon oxalis, pacific trillium, false hellebore**

☐plant communities of concern:

b. What kind and amount of vegetation will be removed or altered? (See answers to questions A-11-a, A-11-b, B-3-a-1-b and B-3-a-1-c. The following sub-questions merely supplement those answers.)

Approximately 6,480 MBF of primarily Douglas-fir, with smaller components of western hemlock, noble fir, red alder, and big leaf maple will be removed from the site. The age of the timber ranges from 55 to 90 years of age. In addition, some vine maple, salmonberry, and salal will be removed during harvest activities on mobile ground to create approximately 400 well-distributed plantable spots per acre.

- 1) Describe the species, age, and structural diversity of the timber types immediately adjacent to the removal area. (See landscape/WAU and adjacency maps on the DNR website at: <http://www.dnr.wa.gov> under “SEPA Center.”)

Unit 1 is bordered to the north partially by a privately owned plantation approximately 10 to 15 year old, and a privately owned Douglas-fir stand similar in age and structure to the proposed harvest area. The boundary to the east and the southwest is a state managed Douglas-fir plantation of approximately 10 to 15 years old. All other areas adjacent to Unit 1 are state managed Douglas-fir stands similar in age and structure.

The western boundary of Unit 2 is a Douglas-fir plantation between 10 to 15 years old, and the rest of the unit is bordered by an RMZ containing timber of the same age and species type as the proposed harvest area.

Unit 3 is bordered to the north, south, and east by an RMZ containing timber of the same age and species type. The western boundary is adjacent to a stand of Douglas-fir similar in age and structure as the proposed harvest area.

Unit 4 is bordered to the north, west, and south by a state managed Douglas-fir plantation between 5 and 7 years in age. Portions of the northern and southern boundary are adjacent to a stand similar in species and age as the proposed harvest area. The eastern boundary is adjacent to a RMZ buffer with timber of the same age and species type as the proposed harvest area.

Unit 5 is surrounded by a Douglas-fir stand similar in age and structure characteristics as the proposed harvest area.

- 2) Retention tree plan:

TSU/Area	Distribution Method for Retention Trees and Snags	Acres in Clumps	Total Trees Left
1	Clumped and Scattered	9	819
2	Clumped and Scattered	<1	58
3	Clumped and Scattered	7	719
4	Clumped and Scattered	7	465
5	Clumped and Scattered	3	313
	Total Leave Tree Acres (including acres of individual trees)	26	2374

There will be an average of 8 wildlife and green recruitment legacy trees per acre remaining on the site upon completion of harvest activities. No western red cedar will be harvested, in an effort to help establish natural regeneration of this species. The legacy trees will be primarily clumped within the site, and there will also be 110 individually marked leave trees distributed throughout the units. This will provide wildlife habitat and a seed source to surrounding areas. The site will be replanted with Douglas-fir and noble fir seedlings at about 400 trees per acre. The forested areas adjacent to streams will not be disturbed, therefore maintaining the riparian plant structure.

- c. List threatened or endangered *plant* species known to be on or near the site.

TSU Number	FMU_ID	Common Name	Federal Listing Status	WA State Listing Status
None Found in Database Search				

- d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any:

See question A.11.b. and B.4.b.2) retention tree narrative below.

5. Animal

- a. Circle or check any birds animals or unique habitats which have been observed on or near the site or are known to be on or near the site:

birds: ☒hawk, ☐heron, ☐eagle, ☒songbirds, ☐pigeon, ☒other: neotropical migratory song birds, woodpeckers, crows, ravens

mammals: ☒deer, ☒bear, ☐elk, ☒beaver, ☒other: coyote, mountain lion, porcupine, raccoons, bobcat, porcupine

fish: ☐bass, ☒salmon, ☒trout, ☐herring, ☐shellfish, ☐other:

unique habitats: ☐talus slopes, ☐caves, ☐cliffs, ☐oak woodlands, ☐balds, ☐mineral springs

- b. List any threatened or endangered species known to be on or near the site (include federal- and state-listed species).

TSU Number	FMU_ID	Common Name	Federal Listing Status	WA State Listing Status
None Found in Database Search				

This proposal is located within Evolutionary Significant Units (ESU's) for lower Columbia steelhead, lower Columbia Chinook, Columbia River chum, and potential bull trout habitat. See question B.5.d. below for mitigating measures taken to protect fish habitat.

- c. Is the site part of a migration route? If so, explain.

☒Pacific flyway

☐Other migration route:

Explain if any boxes checked:

This proposal is located in the Columbia River Flyway, which is part of the Pacific Flyway. While migrating through Pacific Northwest Forests, many neotropical migratory birds are closely associated

with riparian areas, cliffs, snags, and structurally unique trees. Riparian areas and special habitats are protected through implementation of DNR’s Habitat Conservation Plan. Migratory waterfowl also use the Columbia River Flyway. However, the area in which this proposal is contained is not generally the type of area used for resting or feeding by migratory waterfowl.

d. Proposed measures to preserve or enhance wildlife, if any:

- **Leave a minimum of 8 trees per acre. These leave trees have been left in 36 leave tree clumps totaling approximately 26 acres, and 110 individually marked trees distributed throughout the units.**
- **Type 3 streams have been buffered by an average of approximately 167 feet on each side, and the type 4 stream is buffered by at least 100 feet on each side.**
- **Approximately 56 acres are buffered in RMZ's, which will eliminate or minimize sediment introduction**
- **Riparian areas and forested wetland areas will be protected, therefore preserving fish and amphibian habitat.**
- **Wildlife travel corridors will be maintained through the units along riparian areas.**
- **Big game forage will improve as new regeneration and early plant species evolve post harvest.**
- **Selected pockets of leave tree clumps and individually marked trees were left throughout the units in strategic locations, which contain wet areas, down woody debris, snags, and various trees having snag recruitment characteristics.**
- **Any snags to be felled for safety reasons shall remain near where they fall.**
- **All existing down woody debris greater than 36 inches in diameter shall remain on site.**
- **No western red cedar shall be cut in the sale area, preserving and enhancing the relatively small amount of tree species diversity on the site.**

1) *Note existing or proposed protection measures, if any, for the complete proposal described in question A-11.*

See question B.5.d. above.

6. Energy and Natural Resources

a. What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project’s energy needs? Describe whether it will be used for heating, manufacturing, etc.

None

b. Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe.

No

c. What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any:

None

7. Environmental Health

a. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste, that could occur as a result of this proposal? If so, describe.

There will be minimal health hazards due to operating heavy equipment and the possible minor spillage of fuel and lubricating oils. The risk of forest fire is always present and will be increased for approximately two years following harvesting due to logging slash. Contractual clauses require operators to use established safety standards.

1) Describe special emergency services that might be required.

- **Firefighting by the Department of Natural Resources, possibly supported by local fire districts.**
- **Emergency medical and/or ambulance service for personal injuries.**
- **Responses by the Department of Ecology if a spill were to occur.**

2) Proposed measures to reduce or control environmental health hazards, if any:

- **Compliance with state laws.**
- **Fire equipment will be required on site during fire season.**
- **Operations will cease if relative humidity falls below 30%.**
- **Public access may be restricted during times of high fire danger.**

b. Noise

1) What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)?

None

2) What types and levels of noise would be created by or associated with the project on a short-term or long-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from this site.

Noise from rock drilling/crushing machinery, rock blasting, road building and logging equipment, chain saws, yarding whistles, and log/dump trucks will increase during periods of operation on a short-term basis.

3) Proposed measures to reduce or control noise impacts, if any:

None planned.

8. Land and Shoreline Use

a. What is the current use of the site and adjacent properties? (Site includes the complete proposal, e.g. rock pits and access roads.)

- Timber Production
- Mutual use road easements have been granted to other forestland owners for forest management activities in the vicinity.
- Rock from rock pits may be sold to other forestland owners for forest road maintenance.

b. Has the site been used for agriculture? If so, describe.

No

c. Describe any structures on the site.

None

d. Will any structures be demolished? If so, what?

No

e. What is the current zoning classification of the site?

Forest Land

f. What is the current comprehensive plan designation of the site?

Resource Land

g. If applicable, what is the current shoreline master program designation of the site?

Not Applicable.

h. Has any part of the site been classified as an “environmentally sensitive” area? If so, specify.

No

i. Approximately how many people would reside or work in the completed project?

None

j. Approximately how many people would the completed project displace?

None

k. Proposed measures to avoid or reduce displacement impacts, if any:

None

l. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any:

These harvest units will be reforested with commercial species and retained as forestland. This proposal is consistent with current land use designations and zoning regulations. See question A.11.b. above.

9. Housing

a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing.

None

b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing.

None

c. Proposed measures to reduce or control housing impacts, if any:

None

10. Aesthetics

a. What is the tallest height of any proposed structure(s), not including antennas; what is the principle exterior building material(s) proposed?

Does not apply.

b. What views in the immediate vicinity would be altered or obstructed?

- 1) Is this proposal visible from a residential area, town, city, developed recreation site, or a scenic vista?
☐No ☒Yes, viewing location:

The view as seen from nearby developed recreation sites adjacent to Unit 1 will be altered.

- 2) Is this proposal visible from a major transportation or designated scenic corridor (county road, state or interstate highway, US route, river, or Columbia Gorge SMA)?
☒No ☐Yes, scenic corridor name:

3) How will this proposal affect any views described in 1) or 2) above?

The completed proposal as seen from the Tarbell Recreation Trail and day use area will be a large-scale removal of trees in the foreground.

c. Proposed measures to reduce or control aesthetic impacts, if any:

Individually scattered leave trees and clumps were located in areas to reduce the aesthetic impact as viewed from the Tarbell Recreation Trail and day use areas. The harvest area will be planted with Douglas-fir seedlings following the completion of harvest activities.

11. Light and Glare

a. What type of light or glare will the proposal produce? What time of day would it mainly occur?

None

b. Could light or glare from the finished project be a safety hazard or interfere with views?

No

c. What existing off-site sources of light or glare may affect your proposal?

None

d. Proposed measures to reduce or control light and glare impacts, if any:

None

12. Recreation

a. What designated and informal recreational opportunities are in the immediate vicinity?

There is an easement for approximately 4200 feet of the DNR Tarbell Trail within Unit 1. Hunting, mountain biking, hiking, horseback riding, berry and mushroom picking are all informal recreational activities that take place in the vicinity. DNR timber sales staff met on site with the Pacific Cascade Region Public Use Forester on March 23, 2004. Issues discussed during the meeting included the potential impacts to the trail, adjacent day use area, and the measures that will be taken to mitigate those impacts. See question B.10.c. for mitigation measures.

b. Would the proposed project displace any existing recreational uses? If so, describe:

The use of the Tarbell Trail will be temporarily interrupted during harvest activities adjacent to the trail. Other recreational activities may be temporarily interrupted during periods of operation on the site.

c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any:

The scattered leave trees and clumps that have been left adjacent to the trail will reduce the overall visual impact of the proposed activity. The following measures will be enforced during logging operations to reduce or control impacts on recreation:

- **No yarding will be allowed across the Tarbell Trail.**
- **Trees shall be felled away from the trail.**
- **No tops, limbs or other slash shall be left within 25' of the trail and day use area.**
- **Where damaged, the trail shall be repaired to pre-harvest conditions within 10 days of completion of harvest activities.**
- **Lookouts will be required when timber falling takes place within 200 feet of the trail and day use area.**
- **Warning signs will be required where yarding activity takes place within 200 feet of the trail and day use area.**
- **The trail shall remain in a usable condition at the end of each workday.**
- **No activities shall occur in Unit 1 on weekends or state recognized holidays from July 1 through Labor Day weekend.**

13. Historic and Cultural Preservation

a. Are there any places or objects listed on, or proposed for national, state, or local preservation registers known to be on or next to the site? If so, generally describe.

None were found in a search of the TRAX system or are known through local knowledge.

b. Generally describe any landmarks or evidence of historic, archaeological, scientific, or cultural importance known to be on or next to the site.

None known.

c. Proposed measures to reduce or control impacts, if any:

(Include all meetings or consultations with tribes, archaeologists, anthropologists or other authorities.)

None

14. Transportation

- a. Identify public streets and highways serving the site, and describe proposed access to the existing street system. Show on site plans, if any.

See question A.12.b. above and the timber sale vicinity map

- 1) *Is it likely that this proposal will contribute to an existing safety, noise, dust, maintenance, or other transportation impact problem(s)?*

Traffic from this operation will marginally increase noise, dust, and vehicle density, which may temporarily result in a decrease in safety. Contractual clauses require the operator to use existing safety standards. Truck traffic from this individual operation should not increase the need for public road maintenance.

- b. Is site currently served by public transit? If not, what is the approximate distance to the nearest transit stop?

No

- c. How many parking spaces would the completed project have? How many would the project eliminate?

None

- d. Will the proposal require any new roads or streets, or improvements to existing roads or streets, not including driveways? If so, generally describe (indicate whether public or private).

Some new forest roads will be constructed. See question A.11.c. for details.

- 1) *How does this proposal impact the overall transportation system/circulation in the surrounding area, if at all?*

This proposal will have very little impact since all of the new road construction will be forest management roads that end on state land, and those roads will be abandoned upon completion of their use. All forest management roads to be utilized will be tributary to paved county roads, which already have residential truck traffic.

- e. Will the project use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe.

No

- f. How many vehicular trips per day would be generated by the completed project? If known, indicate when peak volumes would occur.

The completed project will generate less than one vehicular trip per day on average. Up to 25 vehicular trips per day could occur during peak harvest activities. These trips would occur primarily between the hours of 0500 to 1700 on weekdays.

- g. Proposed measures to reduce or control transportation impacts, if any:

See question B.14.a.1) above.

15. Public Services

- a. Would the project result in an increased need for public services (for example: fire protection, police protection, health care, schools, other)? If so, generally describe.

No

- b. Proposed measures to reduce or control direct impacts on public services, if any.

None

16. Utilities

- a. Circle utilities currently available at the site: electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system, other.

None

- b. Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed.

None

C. SIGNATURE

The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.

Completed by: _____Date: _____

Title

Reviewed by: _____Date: _____

State Lands Assistant Manager

Comments: _____